

### **ABSTRACT**

A compressed data structure and decompression system suitable for use in portable devices. The data structure and decompression system of the present invention help reduce power consumption and minimize the amount of non-volatile memory needed to support a computing system. In one embodiment of the invention, the data structure contains a plurality of code strings and a plurality of look-up strings. Each look-up string includes an index identifying a particular code string to be retrieved and an instruction identifying an operation to be performed on the retrieved code string. To decompress the data structure, software or other programming reads through each of the look-up strings. For each look-up string the programming retrieves a code string and performs an operation on that code string according to the index and instruction of the look-up string.